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FIG.1

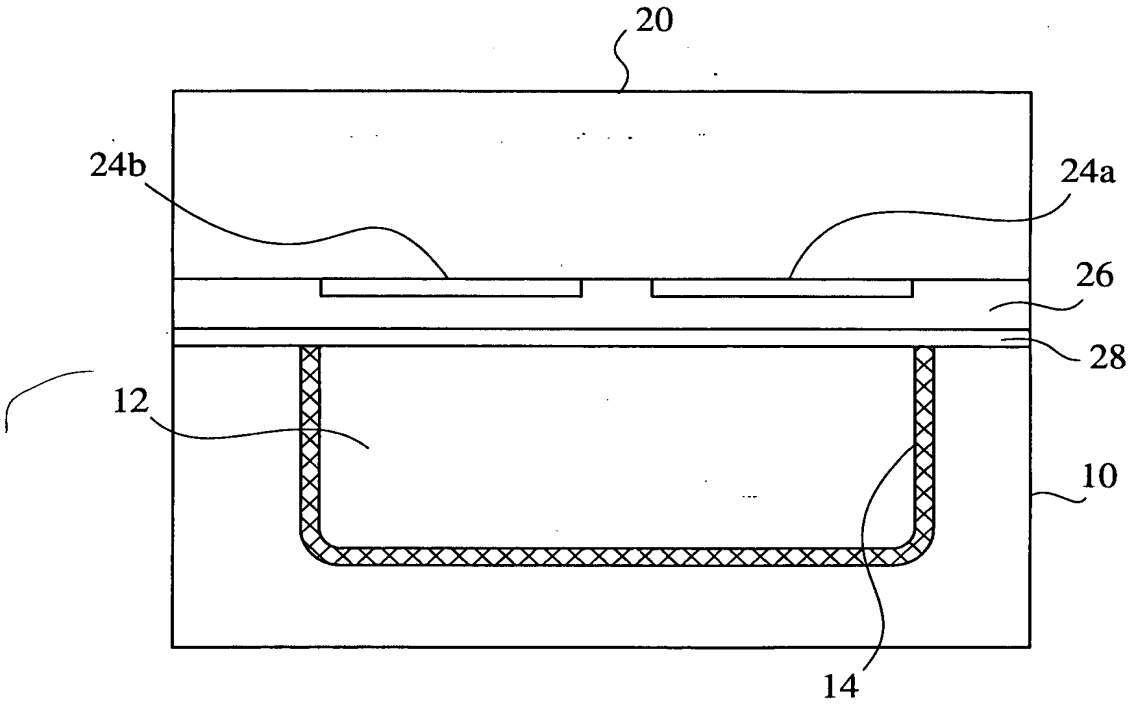

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FIG.2

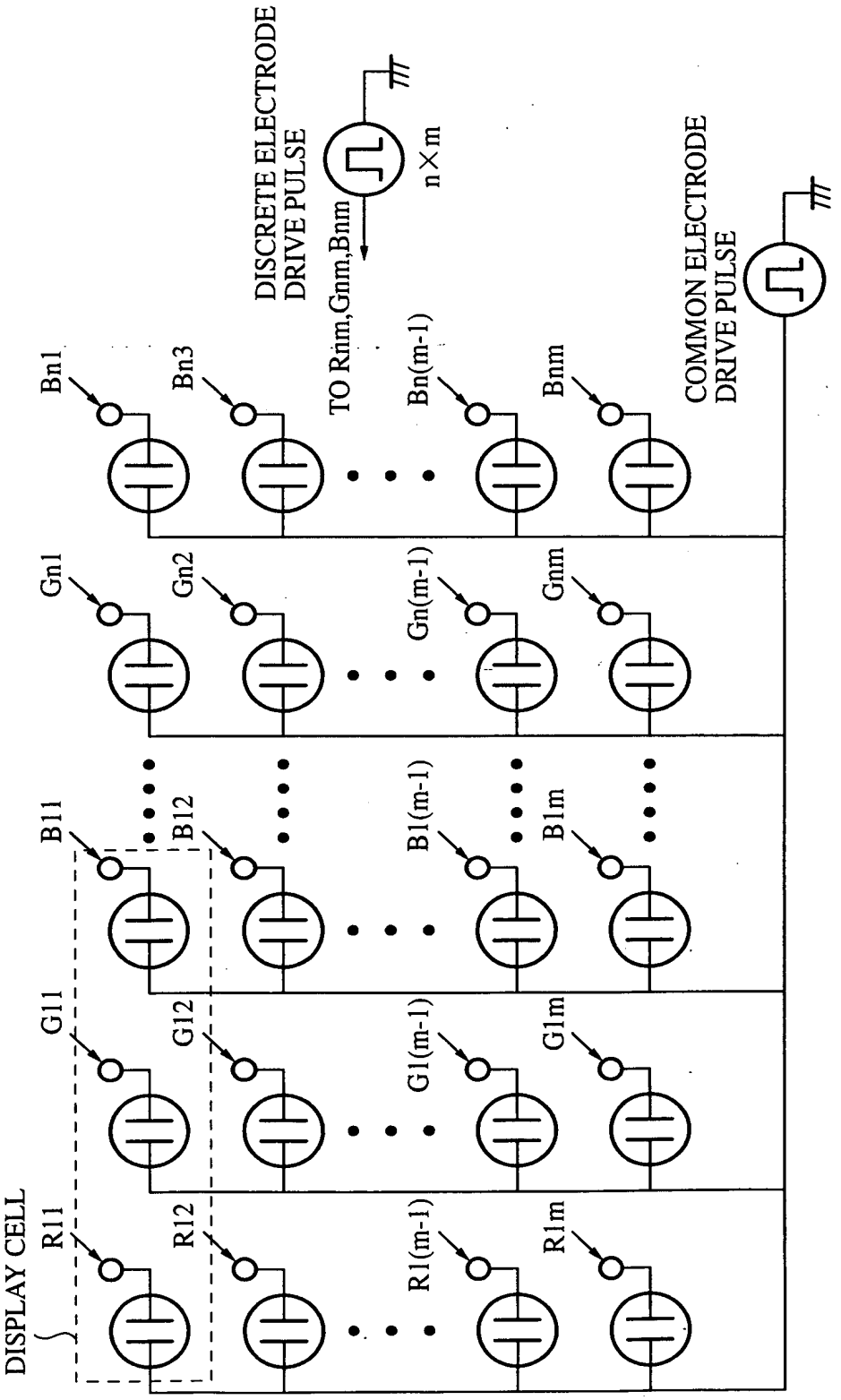

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FIG.3

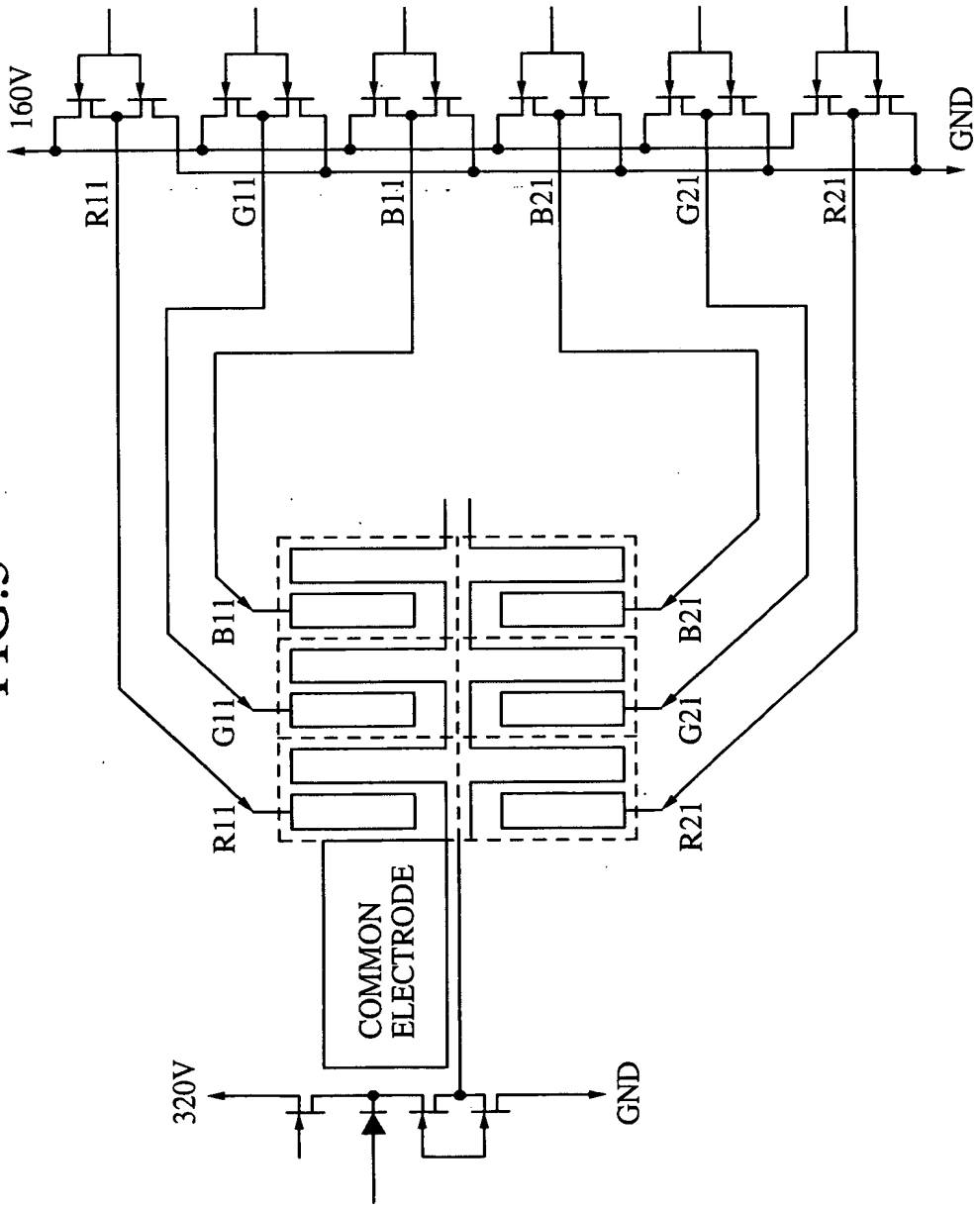

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FIG.4

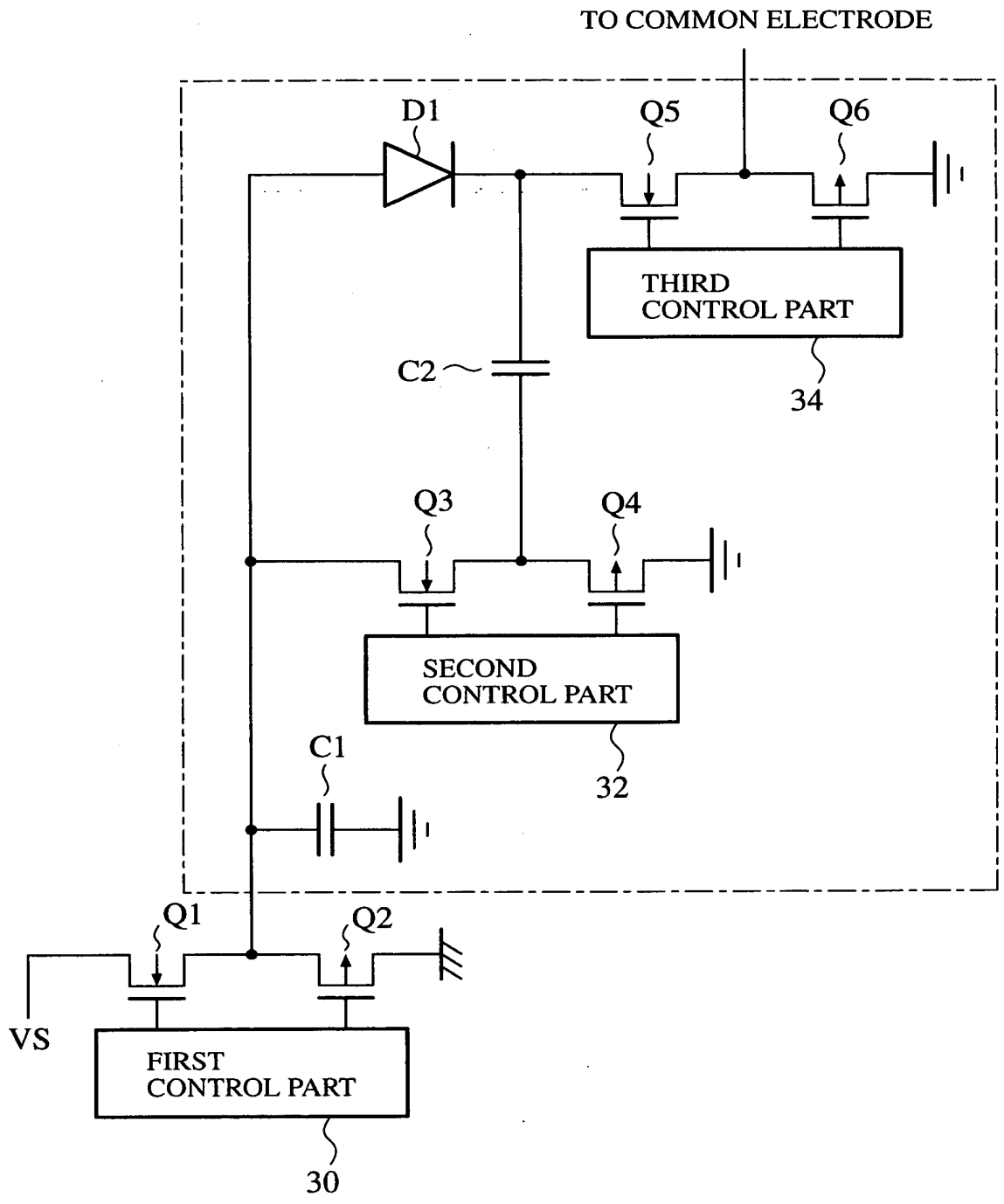

FIG.5

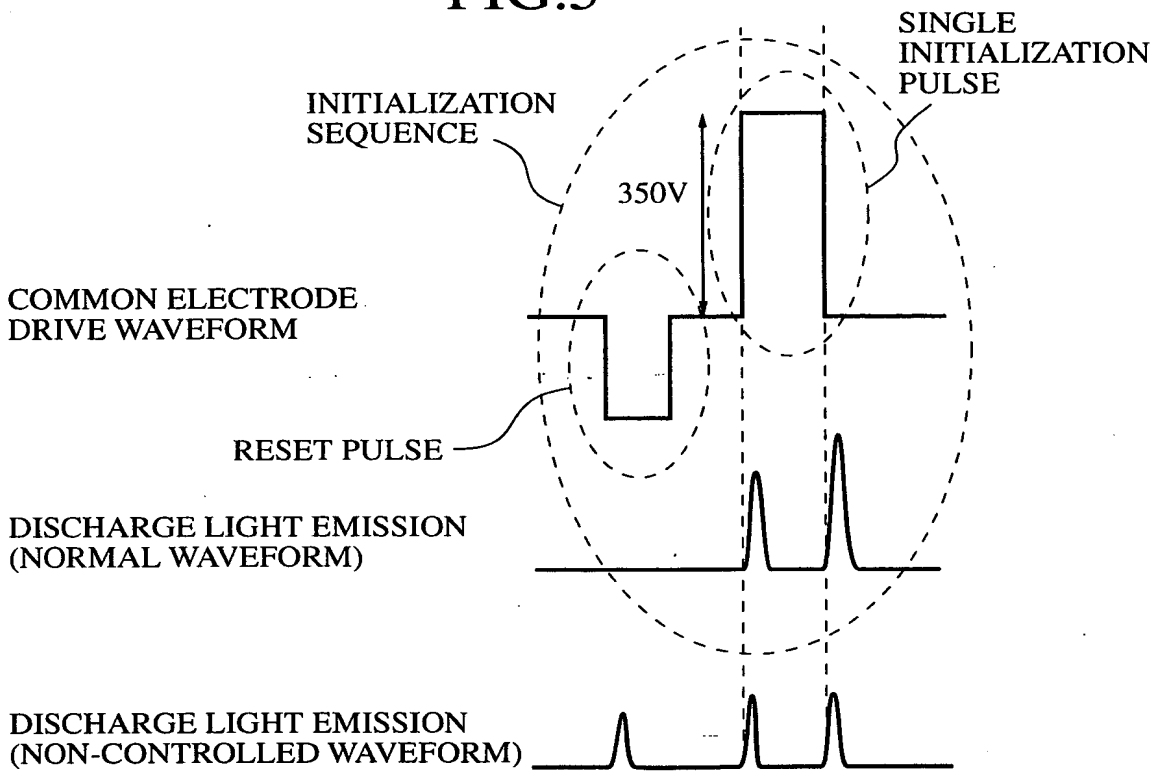
SINGLE INITIALIZATION PULSE
INITIALIZATION SEQUENCE
350V
COMMON ELECTRODE DRIVE WAVEFORM
RESET PULSE
DISCHARGE LIGHT EMISSION (NORMAL WAVEFORM)
DISCHARGE LIGHT EMISSION (NON-CONTROLLED WAVEFORM)

FIG.6

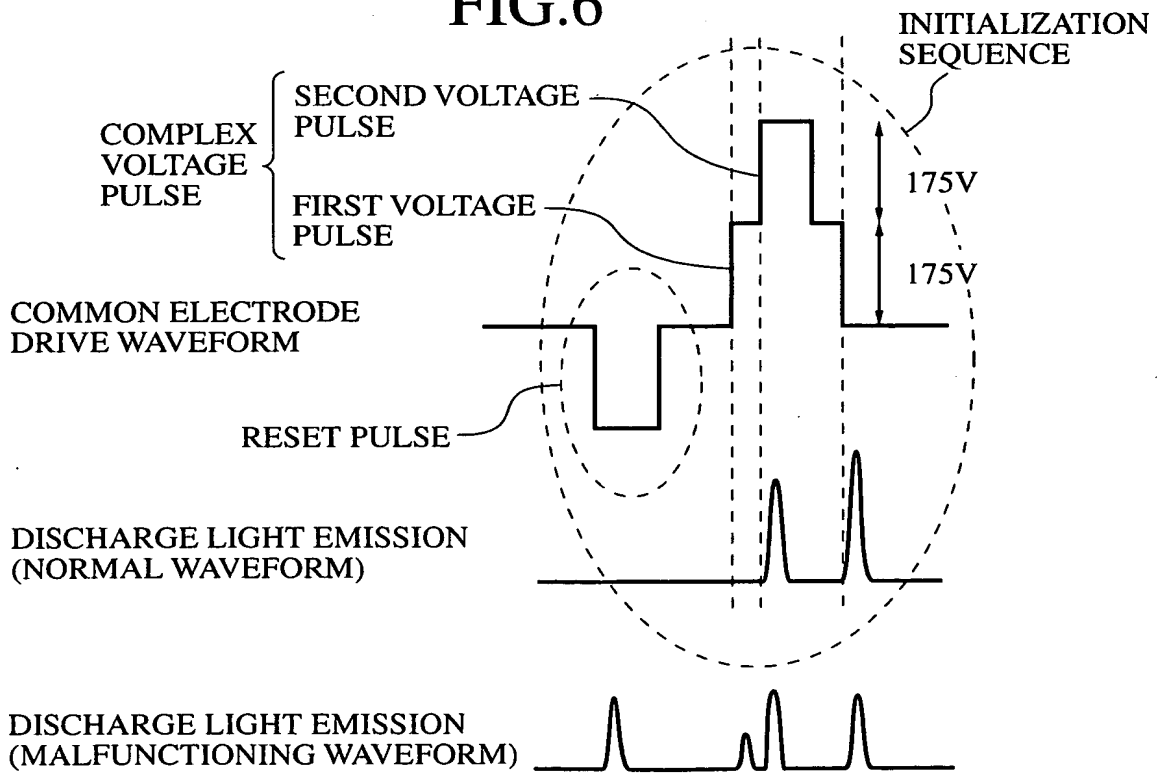
INITIALIZATION SEQUENCE
COMPLEX VOLTAGE PULSE
SECOND VOLTAGE PULSE
FIRST VOLTAGE PULSE
175V
175V
COMMON ELECTRODE DRIVE WAVEFORM
RESET PULSE
DISCHARGE LIGHT EMISSION (NORMAL WAVEFORM)
DISCHARGE LIGHT EMISSION (MALFUNCTIONING WAVEFORM)

FIG.7

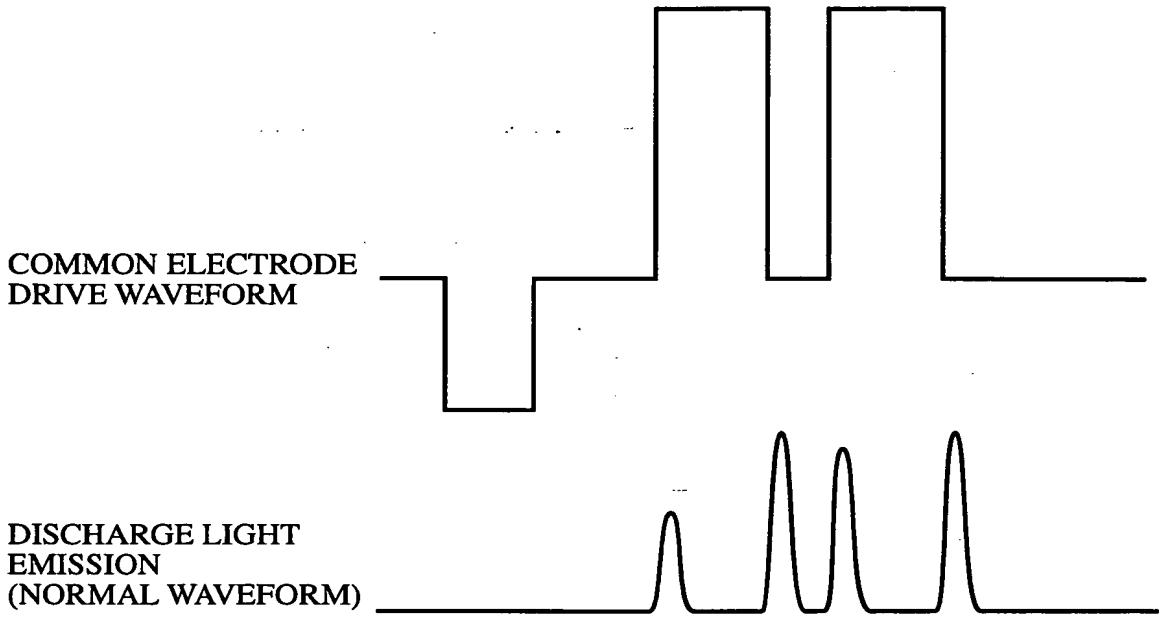
COMMON ELECTRODE
DRIVE WAVEFORM
DISCHARGE LIGHT
EMISSION
(NORMAL WAVEFORM)

FIG.8

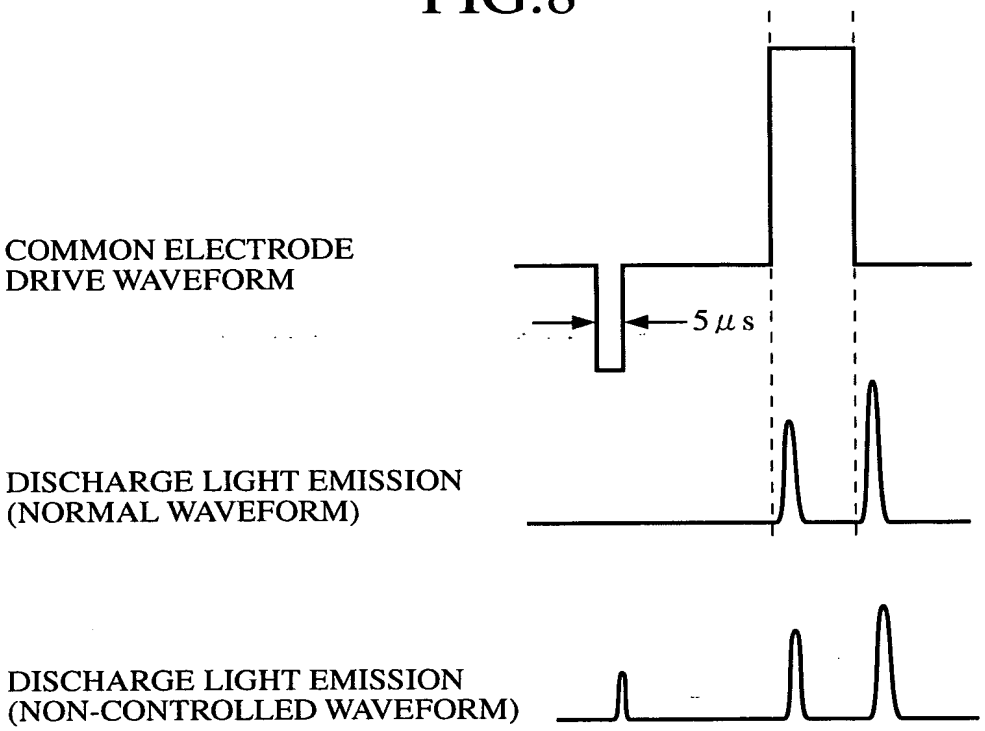
COMMON ELECTRODE DRIVE WAVEFORM
5 μs
DISCHARGE LIGHT EMISSION (NORMAL WAVEFORM)
DISCHARGE LIGHT EMISSION (NON-CONTROLLED WAVEFORM)

FIG.9

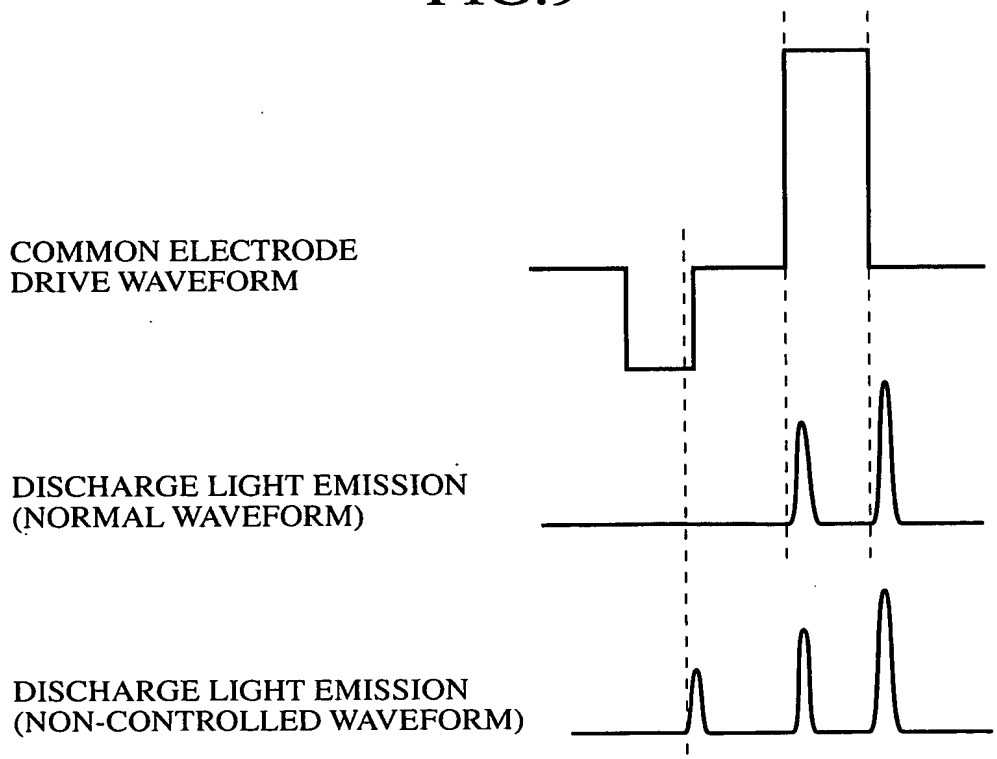
COMMON ELECTRODE DRIVE WAVEFORM
DISCHARGE LIGHT EMISSION (NORMAL WAVEFORM)
DISCHARGE LIGHT EMISSION (NON-CONTROLLED WAVEFORM)

FIG.10

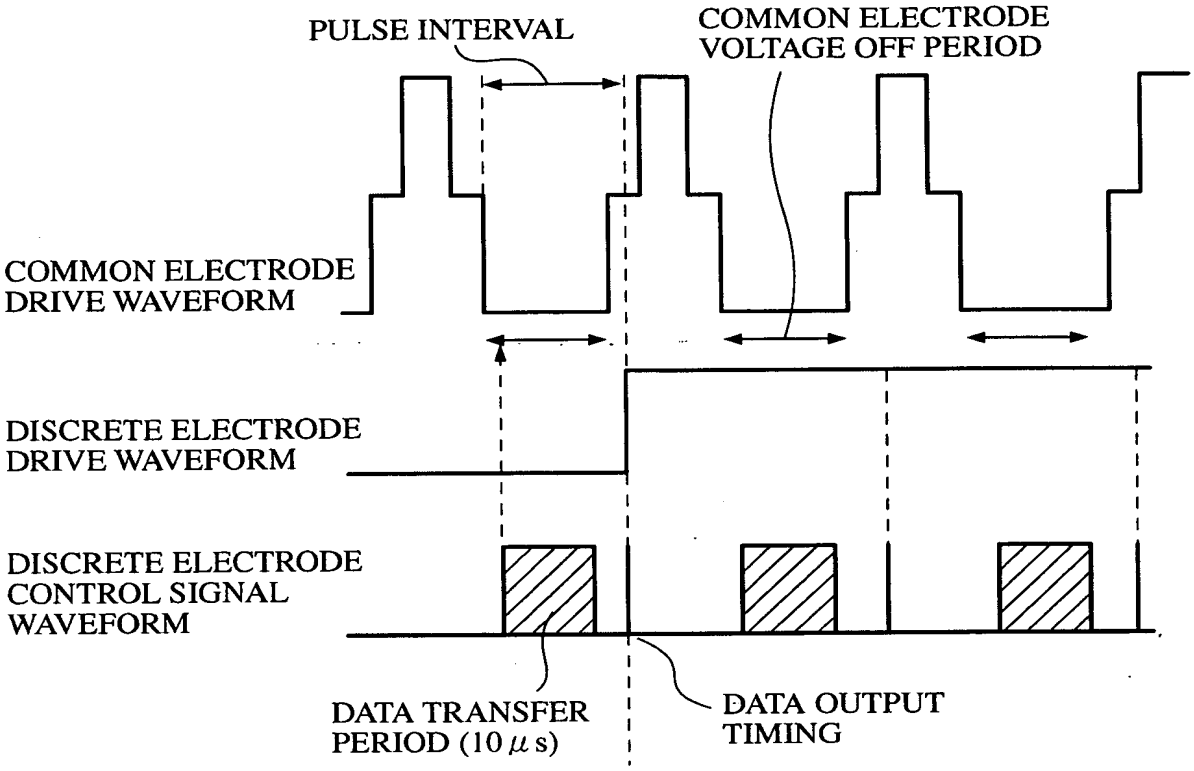
PULSE INTERVAL
COMMON ELECTRODE VOLTAGE OFF PERIOD
COMMON ELECTRODE DRIVE WAVEFORM
DISCRETE ELECTRODE DRIVE WAVEFORM
DISCRETE ELECTRODE CONTROL SIGNAL WAVEFORM
DATA TRANSFER PERIOD (10 μs)
DATA OUTPUT TIMING

FIG.11

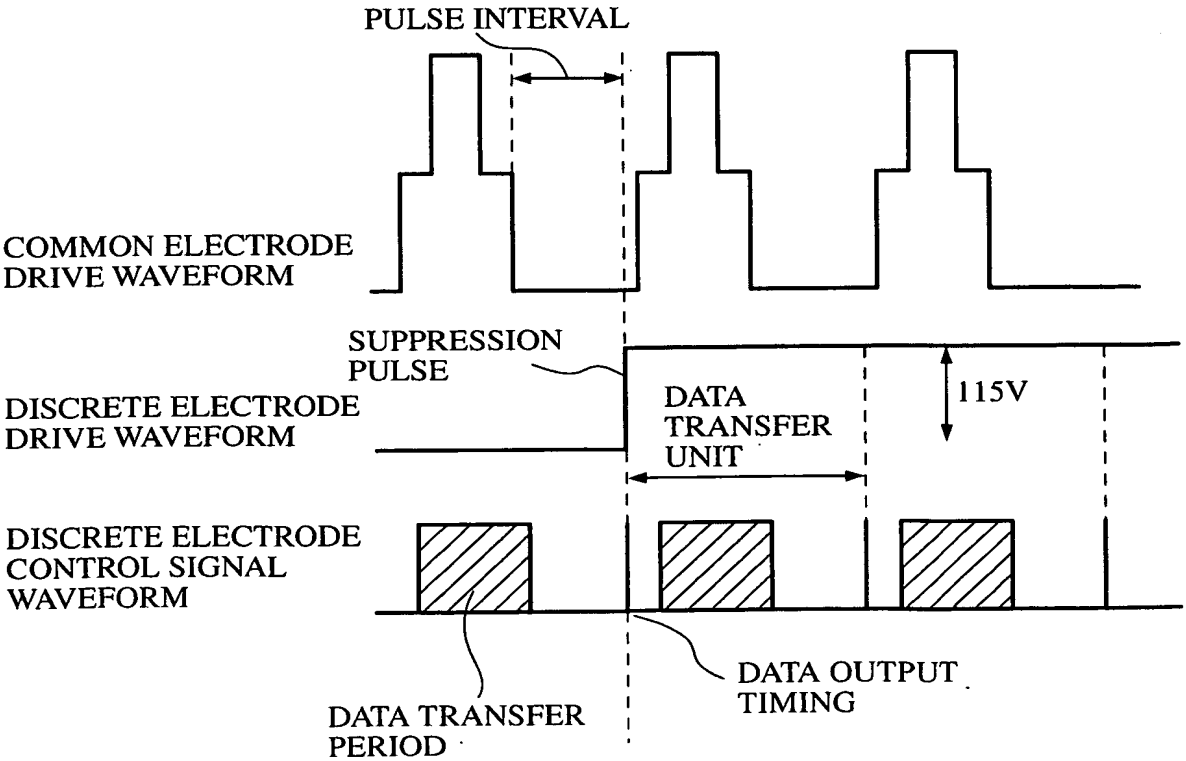
PULSE INTERVAL
COMMON ELECTRODE DRIVE WAVEFORM
SUPPRESSION PULSE
DISCRETE ELECTRODE DRIVE WAVEFORM
DATA TRANSFER UNIT
115V
DISCRETE ELECTRODE CONTROL SIGNAL WAVEFORM
DATA TRANSFER PERIOD
DATA OUTPUT TIMING

FIG.12

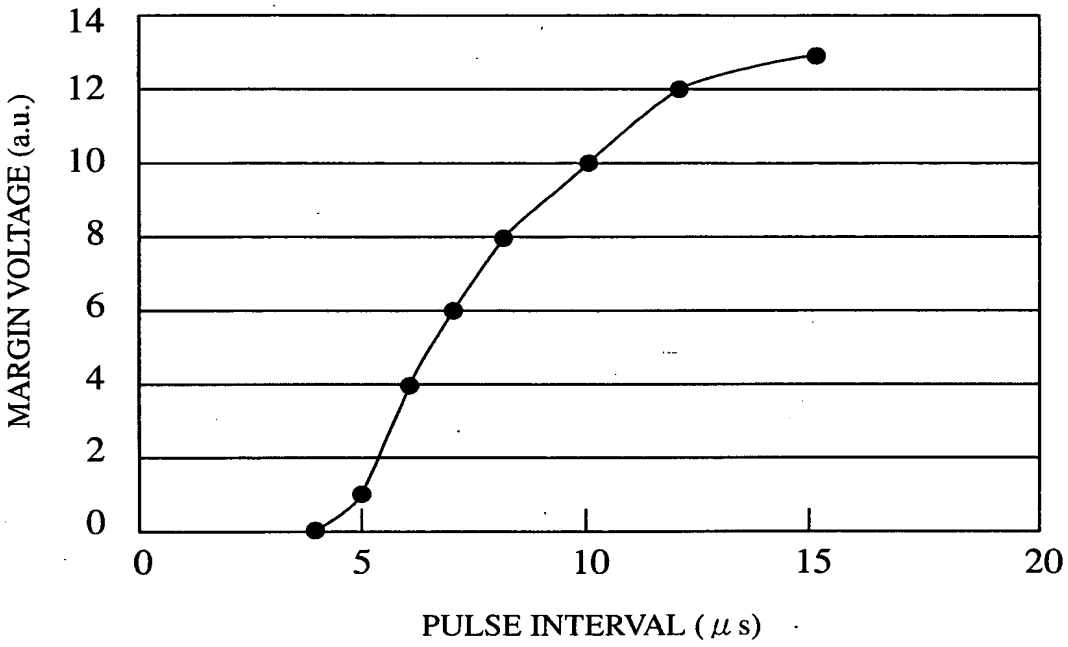

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FIG.13

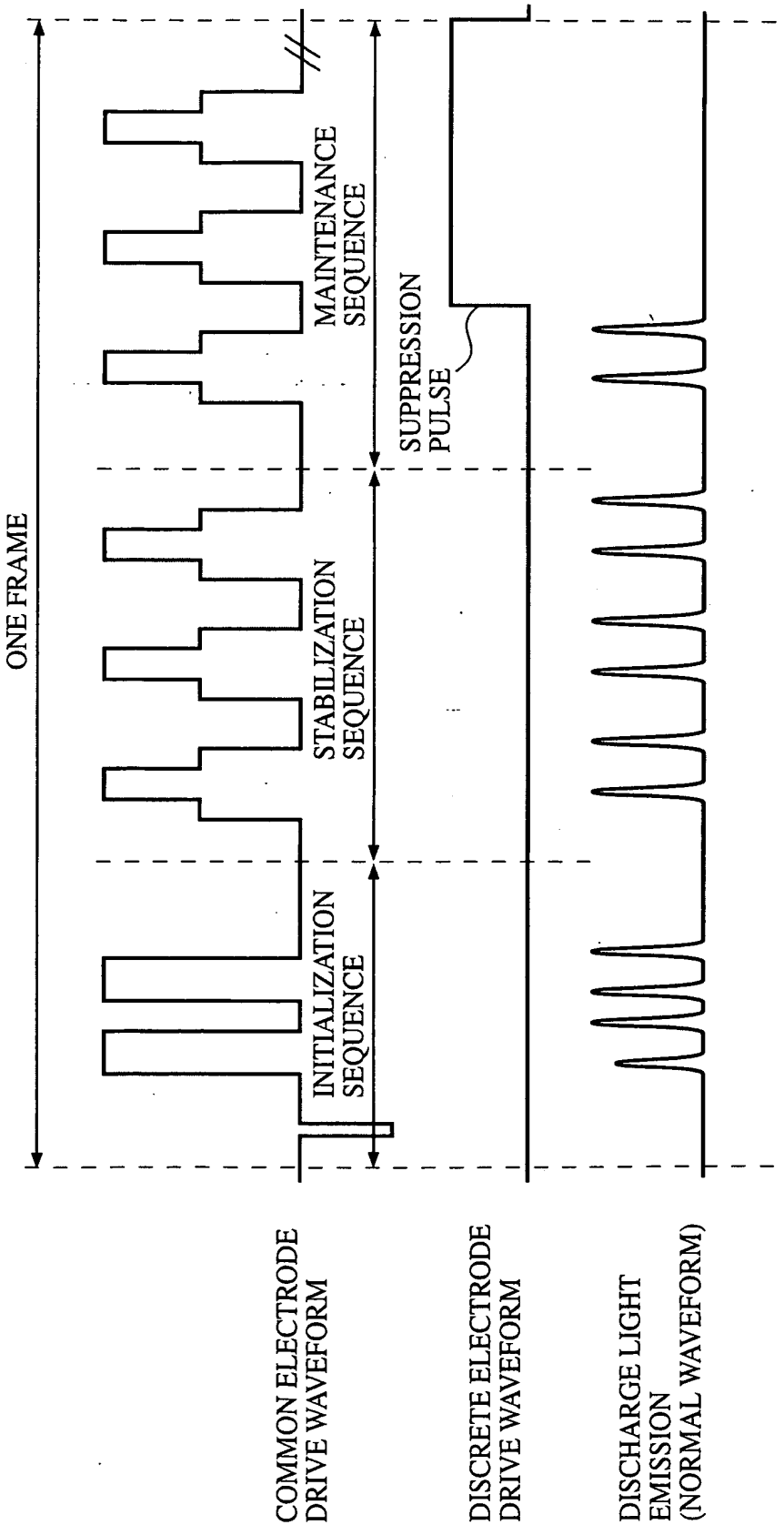

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FIG.14

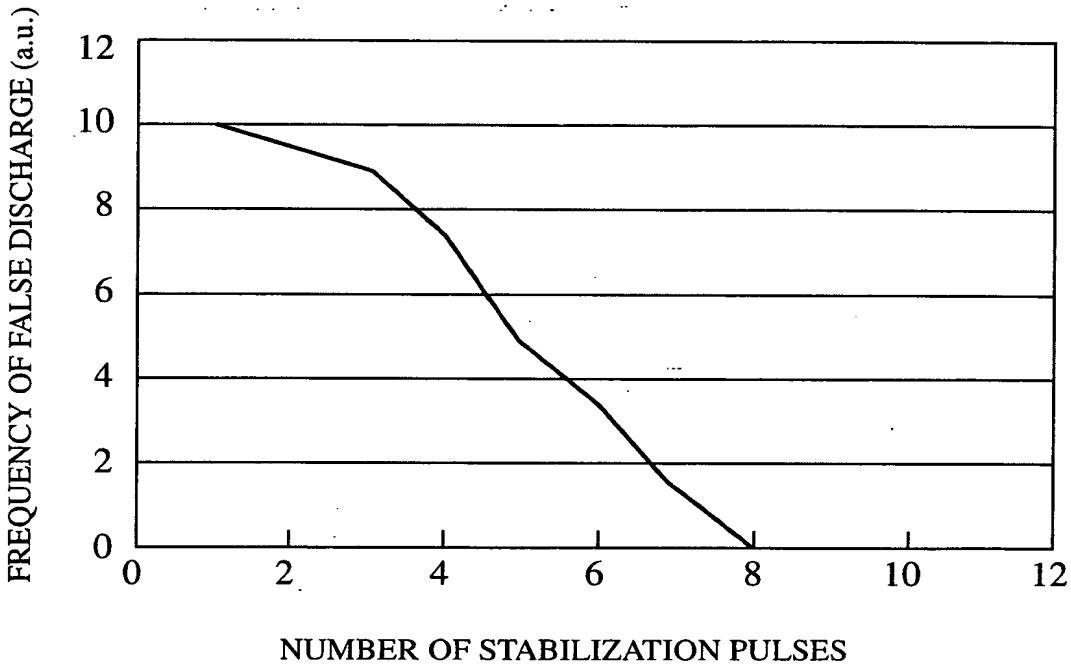

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FIG.15

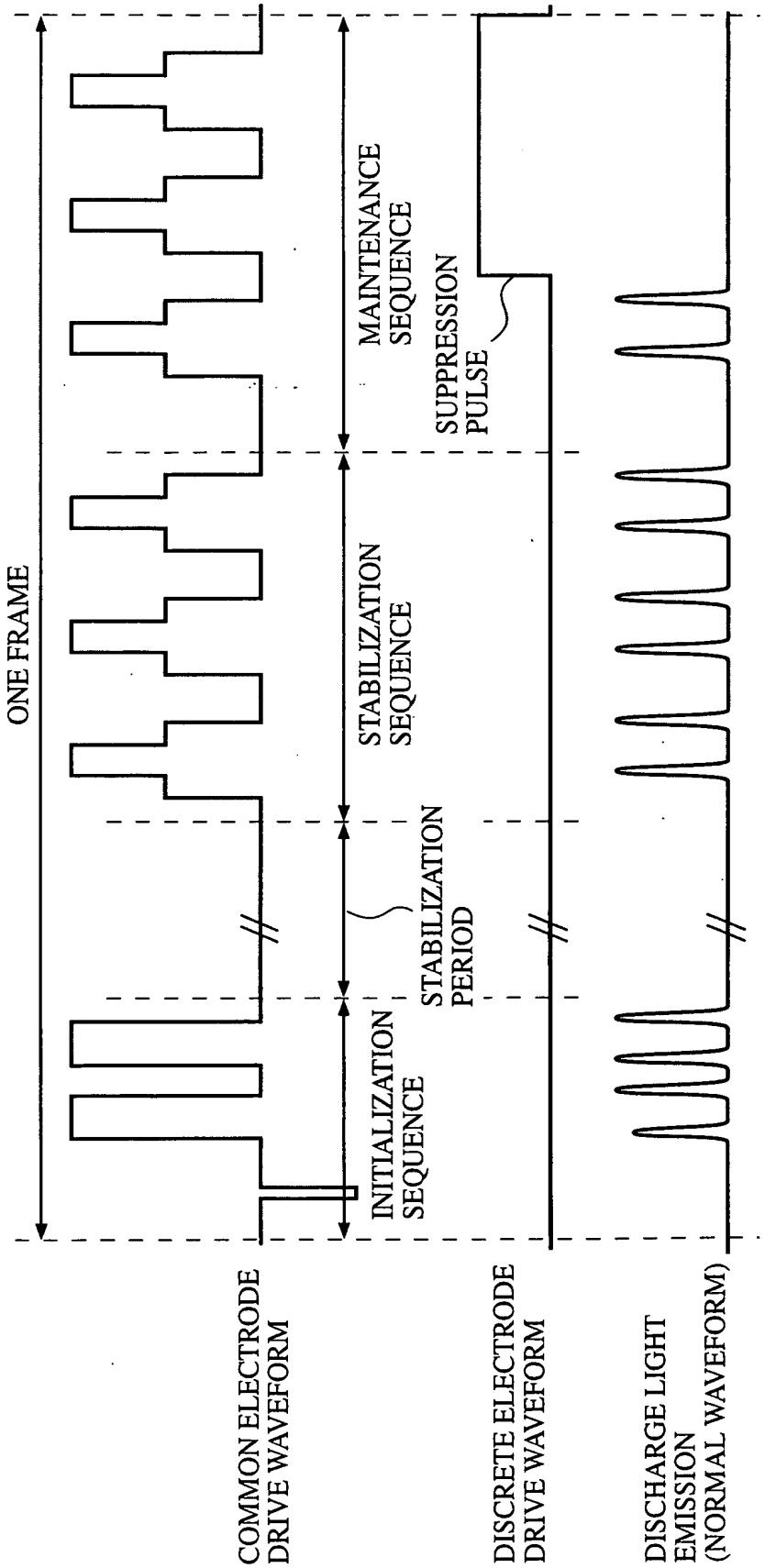

ONE FRAME
MAINTENANCE SEQUENCE
SUPPRESSION PULSE
STABILIZATION SEQUENCE
STABILIZATION PERIOD
INITIALIZATION SEQUENCE
COMMON ELECTRODE DRIVE WAVEFORM
DISCRETE ELECTRODE DRIVE WAVEFORM
DISCHARGE LIGHT EMISSION (NORMAL WAVEFORM)

FIG.16

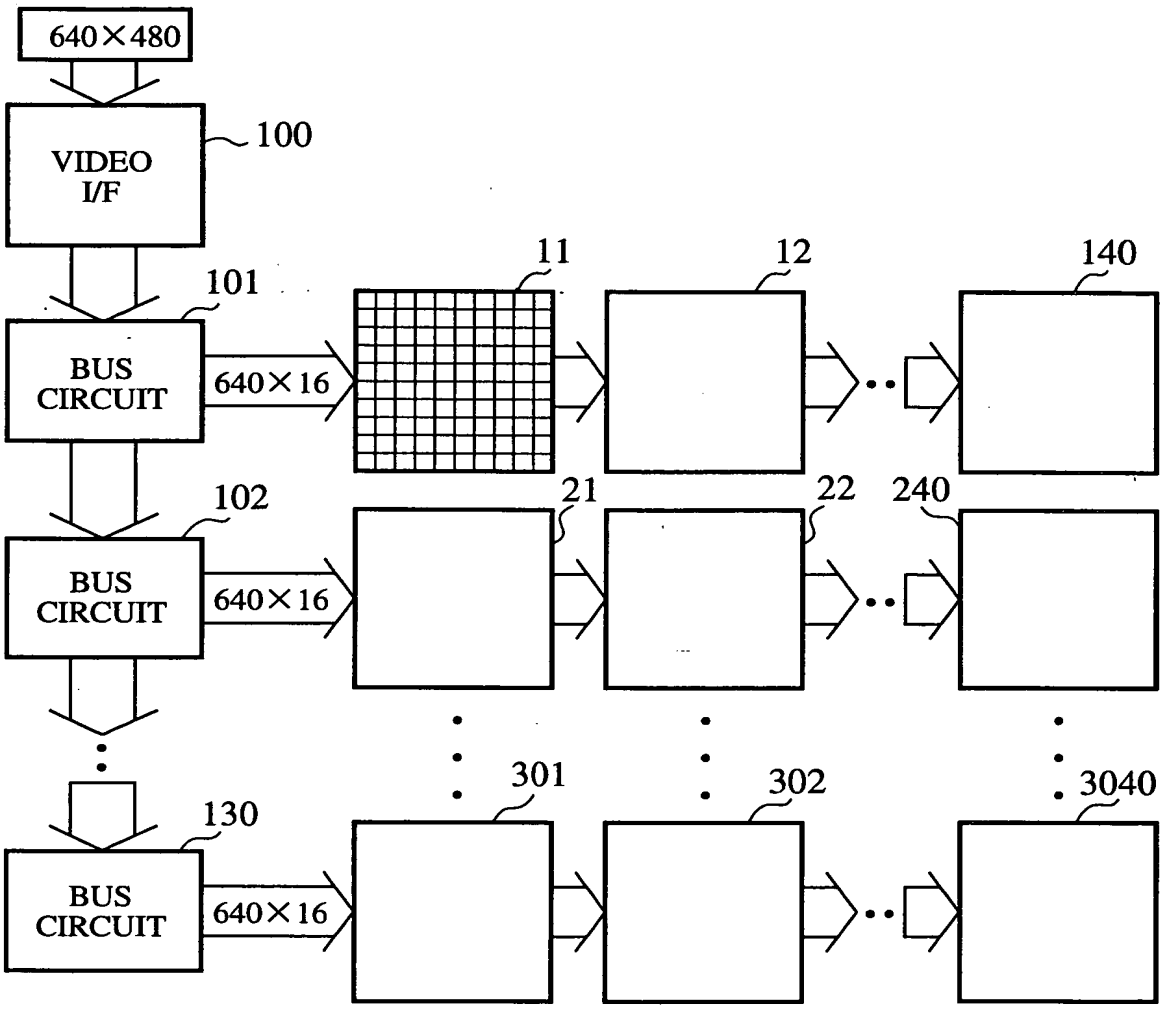

640×480
VIDEO I/F
100
BUS CIRCUIT
101
640×16
11
12
140
BUS CIRCUIT
102
640×16
21
22
240
BUS CIRCUIT
130
640×16
301
302
3040

FIG.17

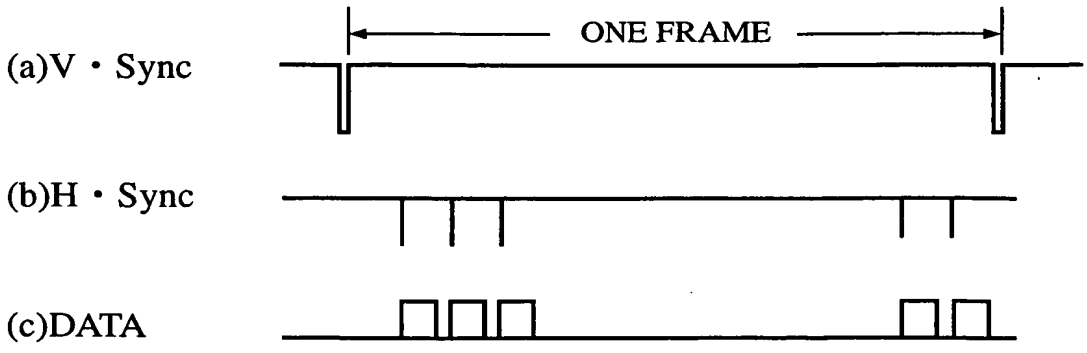

(a)V・Sync
ONE FRAME
(b)H・Sync
(c)DATA

FIG.18

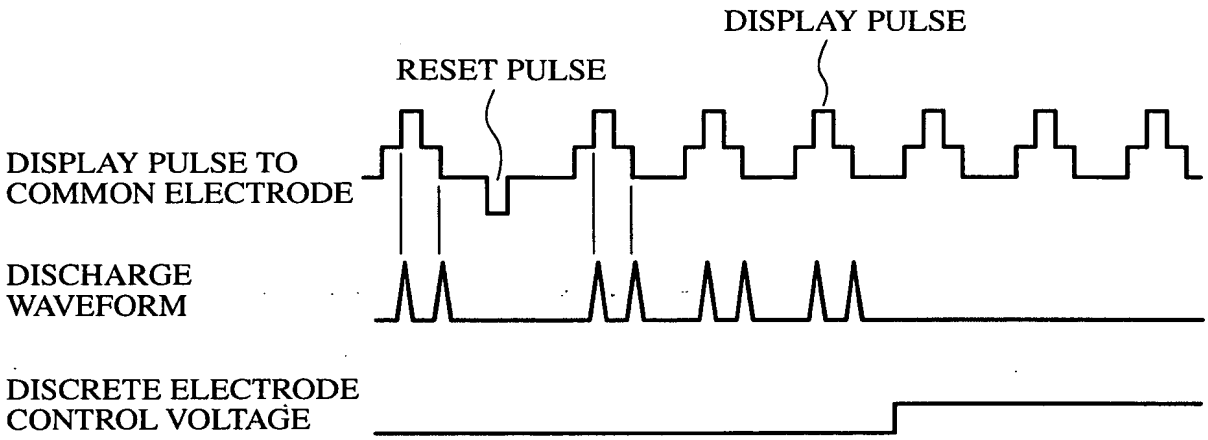

DISPLAY PULSE
RESET PULSE
DISPLAY PULSE TO COMMON ELECTRODE
DISCHARGE WAVEFORM
DISCRETE ELECTRODE CONTROL VOLTAGE

FIG.19

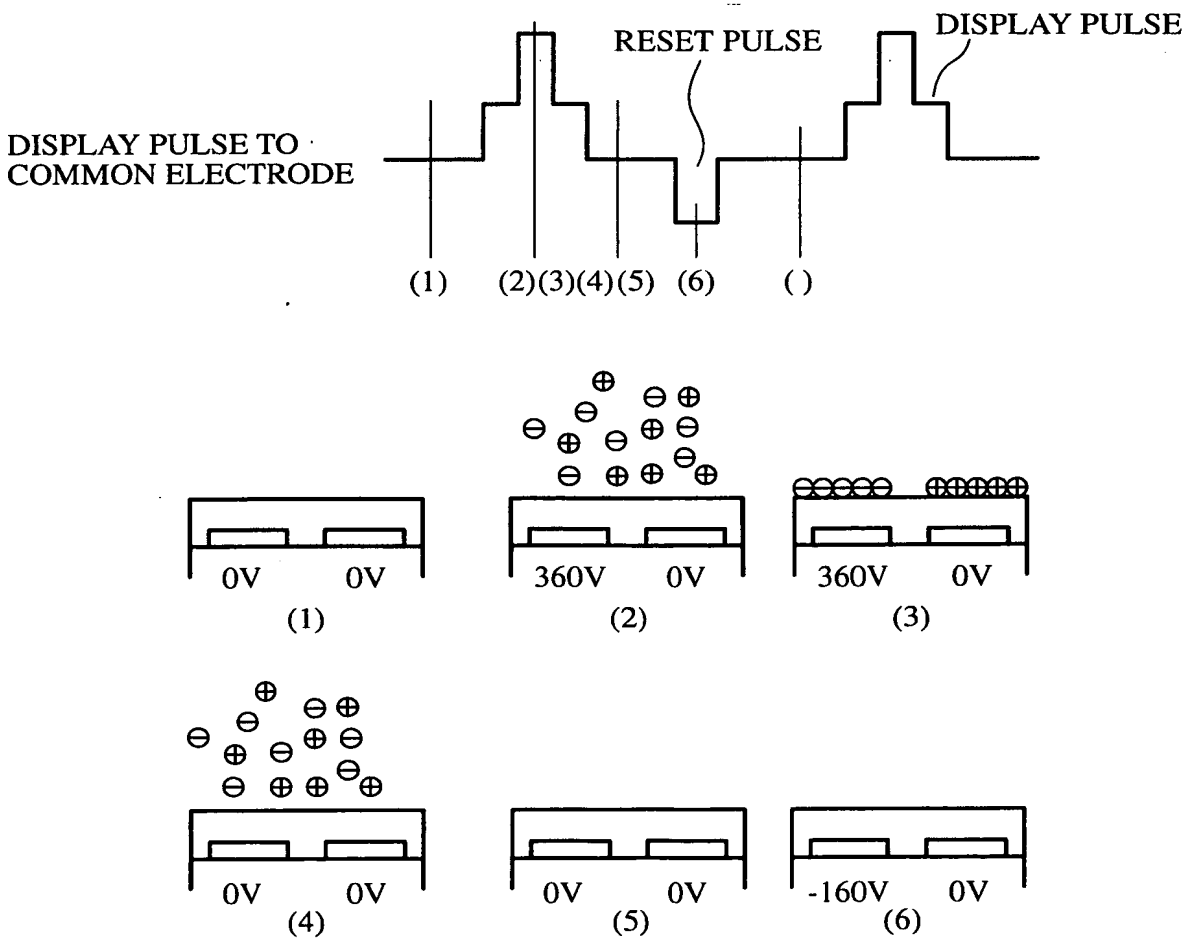

RESET PULSE
DISPLAY PULSE
DISPLAY PULSE TO COMMON ELECTRODE
(1) (2)(3)(4)(5) (6) ( )
0V 0V
(1)
360V 0V
(2)
360V 0V
(3)
0V 0V
(4)
0V 0V
(5)
-160V 0V
(6)

FIG.20

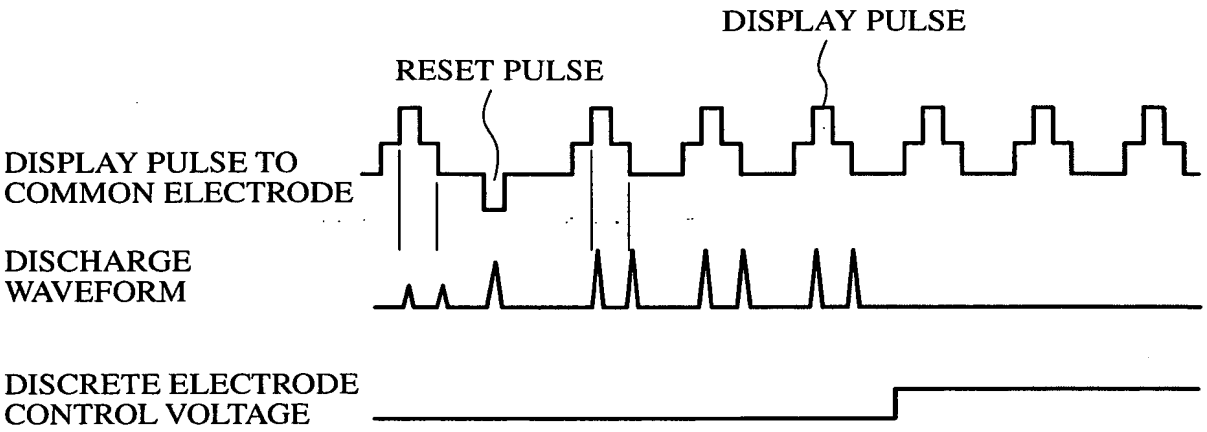
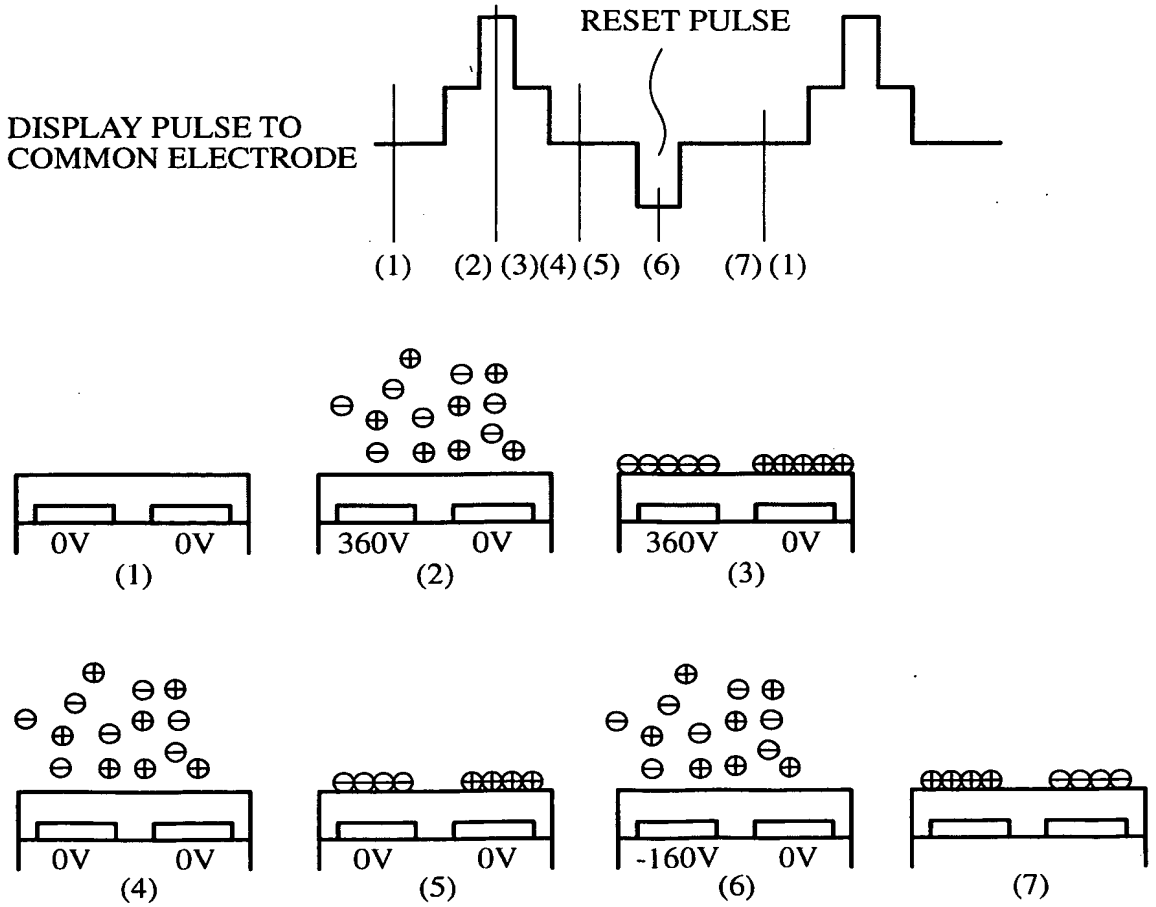

DISPLAY PULSE
RESET PULSE
DISPLAY PULSE TO COMMON ELECTRODE
DISCHARGE WAVEFORM
DISCRETE ELECTRODE CONTROL VOLTAGE

FIG.21


RESET PULSE
DISPLAY PULSE TO COMMON ELECTRODE
(1) (2) (3)(4) (5) (6) (7) (1)
0V 0V
(1)
360V 0V
(2)
360V 0V
(3)
0V 0V
(4)
0V 0V
(5)
-160V 0V
(6)
(7)